Name:

## p1106: Solve by factoring (v14)

1. Solve the equation

$$x^2 - 13x + 36 = 0$$

$$(x - 9)(x - 4) = 0$$
$$x = 4$$
$$x = 9$$

2. Solve the equation

$$x^2 - 6x + 5 = 0$$

$$(x - 5)(x - 1) = 0$$
$$x = 1$$
$$x = 5$$

3. Solve the equation

$$7x^2 + 19x + 41 \;=\; 6x^2 + 6x + 5$$

$$x^2 + 13x + 36 = 0$$
$$(x + 4)(x + 9) = 0$$
$$x = -9$$
$$x = -4$$

4. Solve the equation

$$2x^2 + 26 \;=\; x^2 + 9x + 6$$

$$x^2 - 9x + 20 = 0$$
$$(x - 4)(x - 5) = 0$$
$$x = 5$$
$$x = 4$$

5. Solve the equation

$$3x^2 - 8x - 26 \;=\; 2x^2 - 3x - 2$$

$$x^2 - 5x - 24 = 0$$
$$(x - 8)(x + 3) = 0$$
$$x = -3$$
$$x = 8$$

6. Solve the equation

$$3x^2 - 16x - 35 = 0$$

$$(3x + 5)(x - 7) = 0$$
$$x = 7$$
$$x = \frac{-5}{3}$$

7. Solve the equation

$$5x^2 - 4x - 12 = 0$$

$$(5x + 6)(x - 2) = 0$$
$$x = 2$$
$$x = \frac{-6}{5}$$

8. Solve the equation

$$10x^2 + 20x - 40 \;=\; 5x^2 - 8x + 9$$

$$5x^2 + 28x - 49 = 0$$
$$(5x - 7)(x + 7) = 0$$
$$x = -7$$
$$x = \frac{7}{5}$$

9. Solve the equation

$$5x^2 + 5x + 15 \;=\; 2x^2 - 6x + 7$$

$$3x^2 + 11x + 8 = 0$$
$$(3x + 8)(x + 1) = 0$$
$$x = -1$$
$$x = \frac{-8}{3}$$

10. Solve the equation

$$8x^2 - 21x + 19 \;=\; 6x^2 - 8x + 4$$

$$2x^2 - 13x + 15 = 0$$
$$(2x - 3)(x - 5) = 0$$
$$x = 5$$
$$x = \frac{3}{2}$$